

# DIGITAL PHOTOGRAPHY AND THE ETHICS OF PHOTO ALTERATION

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by

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## ABSTRACT

Digital Photography and the Ethics of Photo Alteration (2008)

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This study discusses the impact of photo alteration on journalistic credibility in relation to the effects of the new capabilities of digital technology. The thesis examines the early history of photo manipulation, in both digital and analog formats, and summarizes debates surrounding specific digitally altered images and the public's and governing bodies' responses to these alterations. Finally, digital photography's position as a new medium or an extension of existing photographic means is considered. The research analyzes altered photos' placements in media sources and uses the opinions of artists and theorists sourced from editorials, essays and texts to develop an understanding of the current uses of digital photographs, and to speculate about where the trend towards digital photography may lead.

## TABLE OF CONTENTS

ABSTRACT.....	ii
TABLE OF CONTENTS.....	iii
LIST OF FIGURES.....	iv
INTRODUCTION: PHOTOGRAPHY AND REALITY .....	1
<i>The Realism of Photographs .....</i>	3
<i>The Objectivity of the Unaltered Photograph.....</i>	5
DIGITAL PHOTOGRAPHY AND ALTERATION .....	9
<i>The Early History of Alteration.....</i>	9
<i>The Creation of Digital Photography.....</i>	14
<i>Alteration Since Digital Photography.....</i>	20
<i>Digital vs. Analog .....</i>	22
REACTIONS TO DIGITAL ALTERATION .....	28
<i>Public's Responses.....</i>	28
<i>Government Reactions to Digital Alterability .....</i>	34
<i>News Outlets' Responses .....</i>	37
CONCLUSIONS: WHERE DO WE STAND? .....	44
<i>Tag the Analog .....</i>	45
<i>But isn't that the point?.....</i>	48
<i>How much should we trust photographs?.....</i>	50
APPENDIX A: RIGHTS AND PERMISSIONS .....	57
WORKS REFERENCED .....	58
CURRICULUM VITA.....	62

## LIST OF FIGURES

1 Eadweard Muybridge Clouds Rest Valley of the Yosemite 1872 .....	12
2 National Geographic Cover, January 1982.....	17

## INTRODUCTION: PHOTOGRAPHY AND REALITY<sup>1</sup>

It's March 2005 and Martha Stewart is getting out of jail. As celebrities' personal lives have become media worthy, *Newsweek* publishes her coming out from behind a red curtain on the cover. From this curtain, which represents her time in a minimum-security prison for insider trading, emerges the new trimmer, healthier looking Martha. This new trimmer body represents the overall reformation that Stewart experienced behind bars. There is a catch. Yes, that is Martha Stewart's head, but the body belongs to a model. This is in fact a photo-illustration. A new term created for the age of digital technology, a photo-illustration is one that is altered to the point that the editors deem it is no longer ethical to consider it a photograph. Yet, in order to find out that this image is in fact a photo-illustration, and not a photograph, one has to flip to the third page and read the fine print. This photo is a compilation of things that do exist, to form a person who never existed in this form, and it looks entirely believable. In the age of digital media this image is not the exception to the norm—it is the norm. We often assume that photographs do not need interpretation, especially in a journalistic context where it is assumed that they record the reality the journalist is attempting to convey. The inference of reality, however, is not always justified.

Photography is a language.<sup>1</sup> A part of our visual culture, photographs are used across society for diverse purposes ranging from personal remembrances to an international means of communication. Photos are used in scrapbooks and greeting cards, as backgrounds on computer desktops and decorations in our homes. Photographs

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<sup>1</sup> This thesis follows the style and format of *History of Photography*.

surround us. From the moment one wakes up, to the moment one goes to sleep, the twenty-first century is defined by photographic images.

These photographic images are used as proof in court cases and newspapers to substantiate the written word. They are used for identification on driver's licenses and passports. Using photographs as proof depends on photos being an accurate recording of reality, while in actuality, as the Martha Stewart example shows, this relationship can be tenuous. The potential for alteration forces the media-consuming citizen to question if an image has been manipulated and if so, to what degree. Members of the public must become conscious critics of the media they rely on, questioning the integrity of images while resisting the temptation to become paranoid by becoming too distrustful of the media in general, or jumping to the conclusion that every image's content and meaning are altered. Though it is necessary to be mindful of who is presenting the news, there is a limit to the productivity of questioning an image's validity. This paper seeks to examine the alteration capabilities of photography in general, with an emphasis on digital photography, and discusses how these capabilities have affected the media's credibility.

Journalism relies on a combination of visual and written information. An important difference, however, exists between a photograph, created by the camera, and linguistic representation, created by the author's pen: the camera's ability to instantaneously capture reality.<sup>2</sup> Though early photography required subjects to sit still for anywhere from a few minutes to more than an hour, modern photographic images are created in less than a second. This means that a photograph records a significantly different scene than the more time-consuming written word. While the written word is understood to mediate reality,

and allows its conveyer to contemplate what he wishes to portray about a scene, the photograph is far less forgiving. In a documentary setting it allows only seconds for decisions about how to record world events. The mechanical means of inscription mean photography is not typically seen as a mediation of reality, but instead as a recording of truth. After snap judgments regarding position of the camera, lighting and exposure time are made, however, alterations are still possible. These alterations that may at first seem an after-thought of the photographer often turn out to be the crux of the image. While editing of the written word is also possible, this is not as shocking as the possible manipulation of photographic images, because literature is understood to be a subjective perception of reality from its creation, instead of the unmediated reality which photography purportedly represents. Furthermore it is understood that the written record is a collection of symbols and signs that convey to the reader the object they represent. There is nothing about the word ball that inherently tells someone it means the object ball. Instead the individual understands through processing the combination of letters that this is the intended item. A photograph, on the other hand, actually appears to be the object it represents; therefore allowing the viewer to assume it requires less interpretation.

### *The Realism of Photographs*

Photography's ability to record specific moments in time is one of its attributes that separates it from paintings or the written word. Literature can be about a generic man, the every man, and not a specific man. A painting may be of an individual that has never and will never exist. Thus a painting or a story depicts an idea or the concept of the man. Yet as the Martha Stewart example shows, given the increased ability of alteration through digital photography, photographic images now have this same ability. Though paintings may

display the emotions the generic man is feeling, his reaction to an event, or merely the space he fills in the work, it is assumed that photography does not have this same power of generality; in fact photography derives its power from the opposite source altogether—its relationship to specificity.<sup>3</sup> The ability of photographs to document specific events or individuals is further recognized by governments and organizations which commonly use photographs as a method of identification on passports or driver's licenses, strengthening photography's relationship with specific details and the truth, yet as the *Newsweek* cover so aptly showed, the apparent truth of the photograph does not always correspond with the actual reality of the situation.<sup>4</sup>

Photography is powerful because it looks real. Most people have looked through a window and tried to decide if it is opened or closed. The window is so clean that the individual cannot tell if there is actually glass separating him from the reality he sees. One may have a similar experience with a photograph. Images can look so much like reality it is easy to forget there is a mechanical process that delivers this image to the audience. In the case of the photograph, however, the process is not as transparent as a windowpane and is ever-changing. It is the evolution in this process—and the potential for the process itself to be manipulated—which may lead one to question a photograph's validity.

Savedoff uses the metaphor of a hallucination to explain the relationship between photographs and reality.<sup>5</sup> She claims that, as with hallucinations, an individual is aware that photographs are not real; yet as with hallucinations, photographs seem so real that it is frequently impossible to distinguish between the fiction of the photograph and the reality



the photograph represents. To some degree, moreover, photographs do not merely record a scene; they also quite literally capture a piece of the moment they represent.<sup>6</sup>

Early photographers were fascinated by the concept that photographs actually contain light from the scene they record. A photograph is created when light enters the camera and alters the physical composition of the “film” being used in the specific process. This chemical alteration due to light exposure permanently renders the image on the surface, which with modern techniques creates a negative. Thus the light which was used to create the image and which in some sense ‘touched’ the photo’s subject has in essence become a part of the photograph, changing the image from a mere rendering of the reality it represents, to a fossilized piece of the scene in the form of light. Sontag refers to this artifact as the “trace” of the image, and states that the light contained in the image is similar to that of a fingerprint it provides a correspondence and according to Mitchell a “causality” with reality.<sup>7</sup> The light that created the image originated in the scene, and thus the photograph is a direct result of the events it records, and physical proof that the scenario took place. Berger further claims that photographs are valuable entirely because of this relationship with the subject. Thus it can be argued that when this reference is removed, or weakened by digital mechanisms, the photograph loses its inherent documentary value.

### *The Objectivity of the Unaltered Photograph*

It must be remembered that even before alteration takes place, the purportedly realistic image provided by a photograph does not necessarily equate with an objective view of the world. In fact, photographs depict a particular way of seeing the world, as determined by the photographer and editor prior to the public receiving the image.<sup>8</sup> The

photographer chooses what scenes to record, where to record them from and how to record them. These choices inherently involve including and excluding objects from the frame based on personal and aesthetic judgments. Even after the photographer determines what to include in the frame there are a variety of stylistic choices that alter the content and therefore the integrity of the image. One example is when the photographer decides upon how much light to use: creating an image in a shadow, instead of a brightly lit scene, will alter the tone and as a result the meaning of the image. The photographer also decides how long to leave the shutter open, which determines how much time will lapse during the creation of the image. This may result in a blurry image, due to movement during the recording, or a “ghost” if an individual exits the scene before the image is completed. Exclusive of these choices, even though a multitude of photographs may be taken of a single event, few are included by most major newspapers, further diminishing the objectivity of a photo, which was originally part of a series. Thus while the original photo shoot may have contained a relatively unbiased view of the event, the end product may be colored by personal and organizational agendas, whether this outcome is intentional or not.

It is also important when assessing the documentary strength of an image that photographs are generally intended to be aesthetically pleasing.<sup>9</sup> Even photographs created for a journalistic purpose are rarely strictly documentary in nature.<sup>10</sup> Creating documentary images with aesthetic goals in mind, however, is not new for photography. In fact visual motives of photojournalists are exemplified by early war photographers, like Matthew Brady, who posed Civil War corpses to create more aesthetically pleasing and fantastic images.

The social, historical, and cultural perspective of all individuals involved in the creation and distribution of a photograph also affect its interpretation.<sup>11</sup> The individual photographer's motives and beliefs may alter the reality of the image he or she portrays. If a photographer thinks an event he is documenting is favorable he may be more likely to record it in a positive light. Take for instance a protest, if the photographer is in favor of the protesters he may be more likely to record images of police violence. While if the photographer is on the side of the government he may be more likely to record rioters' instigation. Thus the investment of the artist influences his creation of the work, thereby altering the specific view of reality it portrays.<sup>12</sup> The objectivity of the photo, which is already in question due to decisions regarding how to convey a scene made by the photographer, is further weakened because the decisions made by the photographer may have been colored by the organization he created the image for, as well as by his presumed audience, and his personal stance in life. Thus if our hypothetical reporter works as a publicist for the protesters he will record a very different scene than if he works for the newspaper.

Adnan Hajj demonstrated this tendency to present more fantastic images with his controversial photo of Beirut during the 2005 Israeli War with Hezbollah printed by Reuters. Hajj photographed Beirut following an Israeli air-strike, but during the editing process, he added smoke to the image. Using the "clone" tool on Photoshop, a publicly available photo-editing software he copied and pasted smoke across the image. Incidentally, this fakery, which was originally identified by the Internet blog *Little Green Footballs*, identified the image as fake because the exact same plume of smoke appeared at two points in the same image.<sup>13</sup> An artist first alerted the blog to the fake, as he recognized

the work as similar to his own early trials with photographic manipulation via Photoshop. Yet altered images are rarely this easy to detect, as more complicated programs and more experienced photographers abound. This example clearly shows the temptation to a photographer, in this case Hajj who relied on commissions for his income, to make photographs as valuable as possible to his consumers, the news editors, by making them as dramatic as possible. When contacted to use the Hajj image in this paper, Reuters responded, “Unfortunately due to the nature of that image it is no longer available and Hajj no longer works for Reuters,” demonstrating that Reuters does not agree with Hajj’s tactics.<sup>14</sup>

Though Hajj’s image clearly was not objectively created, even images that are “unbiased” may be subject to varying interpretations. This is exemplified by the photograph’s use in court to prove that a specific event occurred.<sup>15</sup> During cross examination, opposing counsels may provide differing explanations of the same visual evidence, demonstrating that though the image may provide evidence of a scene which did occur, that event can be interpreted in a multitude of ways—even from the singular perspective presented in a picture. Thus while alteration is an important consideration in photography, it is equally important to recognize that photographs are not now nor have they ever been completely objective, but that they instead record the specific experiences of individuals that are then published as if they were reliable facts.

## DIGITAL PHOTOGRAPHY AND ALTERATION

### *The Early History of Alteration*

All photos can be altered. Digital photography did not create this ability—instead it expanded it. In 1903 Edward Steichen, an early American photographer and art theorist, said that “every photograph is fake, from start to finish, a purely impersonal unmanipulated photograph being practically impossible.”<sup>16</sup> Thus even before the advent of digital photography the topic of photographic alterability was discussed by eminent photographers and critics.

Though it is generally understood that digital photographs may be manipulated, and therefore must be questioned, Derek Bouse argues in *Restoring the Photographed Past* that the public frequently has the inappropriate assumption that the older the photo, the more reliable it is. This belief implies that it was either improbable or impossible for analog images to be altered, consequently assuming that analog photographs are more reliable than digital images that can be faked.<sup>17</sup> Yet older images were also altered and even faked. A well-known example of this is Matthew Brady’s practice of arranging the bodies of the dead to produce more dramatic Civil War photographs.<sup>18</sup> While this intervention occurred prior to the technical creation of the photograph, instead of after its completion as with digital technologies, it still altered the reality recorded and relayed to the public. Although digital alteration has changed the methods of altering photographs, it did not invent such practices.

Edward Curtis is another historically important photographer notorious for altering images prior to recording them. A well-known documenter of Native American garments,

Curtis frequently dressed his subjects in inaccurate costumes.<sup>19</sup> He used the clothing of other tribes, garments for ceremonies that were not pictured, and anachronistic dress to enhance the artistic quality of the photograph irrespective of the detriment this caused to the image's documentary value, again demonstrating that alteration existed prior to the advent of digital technology. It is important to recognize, however, that while both Curtis and Brady exemplify alteration before the photograph was recorded, there was also significant alteration of images after their creation in pre-digital times.

Even when analog photography was the most technically advanced photographic technology available, alteration after images were initially recorded was common. One example of this was in family photographs. It was not uncommon for additional members of a family to be added to a frame using cut and paste tactics.<sup>20</sup> In some particularly humorous images this combination technique leads to some family members appearing to be giants as others look like midgets due to differences in the size of the individuals pictured. Some individuals may appear to be floating in other images, such as those by A. Werner and Sons, as the inserted individuals pictured do not appear to be standing on the ground.<sup>21</sup>

Oscar Gustave Rejlander was notorious for "photo-trickery," as it was termed in the 1850s. A master of the combination print, Rejlander used more than thirty separate negatives to create his most famous allegorical image "The Two Ways of Life," which shows a philosopher looking between the two types of life one may lead, virtue and vice. Combination prints were created by splicing together multiple images and using them to create a single print. In these circumstances it was crucial that all images have similar tone

quality and size references to avoid unintentional floating or shadows, which were discussed in reference to family photographs. Originally a painter, Rejlander continued to pursue the same goals with the new media of photography and frequently used double exposures and combination prints in his work. Before the advent of digital photography there were already images that documented events that had never occurred.

Though Rejlander practiced obvious photographic alteration, many artists used the same methods in much less flagrant ways. One such artist was Eadweard Muybridge. Though he is best known for his animal locomotion series, he was a landscape photographer before he began his timed series of animals. In the mid-1800s it was difficult to develop an image in such a way that the contrast showed both the landscape and the sky. Typically, if the landscape appeared to be in the proper color gradation the sky was washed out, yet if the sky appeared to be properly developed the landscape appeared to be a massive shadow. Thus Muybridge created the “cloud negatives.” These were a series of negatives which he developed so that the sky, and hence the clouds, were in excellent contrast. He then cut these negatives to form combination prints with his other images. His sky appeared to be in contrast with the image, but it was from a completely different locale and season. This process, though not obvious to the viewer as the image looked natural, was clearly an early form of photographic manipulation, one that is quite similar to digital adjustments made by photographers today. Furthermore, for his Yosemite series, Muybridge “cut down trees by the score that interfered with . . . the best point of sight” (Hunt Jackson). He not only altered the negative once the photograph was recorded, he at times altered the world to better fit his frame. One image from his Yellowstone series,

which involved both alteration of the scenery by removing a tree, and alteration of the print by using the cloud negatives is the aptly titled “Clouds Rest” (Fig. 3).



**Figure 1 Eadweard Muybridge Clouds Rest Valley of the Yosemite 1872**

While Muybridge used photographic manipulation to create more aesthetically pleasing images for artistic purposes, Lenin used photographic alteration to change history and make it more closely fit his political agenda for the Soviet Union. The Soviet regime frequently killed individuals who were deemed “enemies of the people.” When these individuals were in state photographs or appeared alongside Lenin in any image, it was not uncommon for them to be removed. One of the most notorious examples of this is the systematic removal of Leon Trotsky from all state images after Lenin decided he was an



enemy of the people.<sup>22</sup> Nikolai Yezov, the leader of the soviet secret police was also removed from formal Soviet images after he fell out of Stalin's favor. Many of the images manipulated by Lenin and the Soviet Regime were created in the 1920s, though alteration of existing photographs continued well into the 1970s.<sup>23</sup>

Even when analog processes are being used, and photographs are not clearly altered as in the example of Muybridge, a multitude of stages are involved prior to the creation of the final image. Steichen stated that "the detail, breath, flatness or contrast" which are all determined in the darkroom by the original artist, or whomever is creating the print, alter the final image, and argued that when such alterations are made to the final product "faking has been resorted to."<sup>24</sup> Even when creating the initial exposure, Steichen reminds the reader, the photographer creates and determines the time of exposure, and the mix of the developer, again altering the final image to best attain his goals. Since the age of digital technology many of these changes are considered appropriate. In fact some major publications' guidelines for alteration, which will be discussed later, state that alterations that could originally be made in a dark room using analog formats are still legitimate alterations. They claim that alterations that would generally be made in the darkroom by the developer do not equate to photo-manipulation, since they have always been a part of the photographic process—though Steichen clearly held the opposing view. The difference lies in the fact that Steichen recognizes that photographic alteration has always been possible, while many news sources view it as a new ability of the digital age.

### *The Creation of Digital Photography*

In the 1950s Russell A. Kirsch and the National Bureau of Standards created an early scanner that traced variations in intensities of photographs.<sup>25</sup> This first version of digital imagery made previously created analog photographs available in a digital format. Thus rather than creating an entirely new pixilated image, this technology initially served to transform an existing image into a new form. The ability to transfer an image from an analog to a digital format is important when considering which images may be altered. Given that any analog image may be scanned and transformed into a digital form, an image's initial form does not necessarily affect its final alteration potential.

The National Aeronautics and Space Administration (NASA) was also a forerunner in developing digital photography, which allowed scientists to transmit images back from space via a signal instead of needing to transfer physical material. Before transmitting digitally conceived images was possible, however, NASA used digital technology to clarify analog images with technology similar to that designed by Kirsch before releasing them to the public. Examples include an instance when NASA removed flaws from photos provided by Ranger 7 in 1964, and when it also used digital technology to clarify the analog images of Surveyor 7.<sup>26</sup> In 1977 NASA began transmitting digital feeds of digitally created images from space back to Earth. These images soon became more specialized, with NASA commencing to provide digitally collected radar images to archeologists in the 1980s.<sup>27</sup>

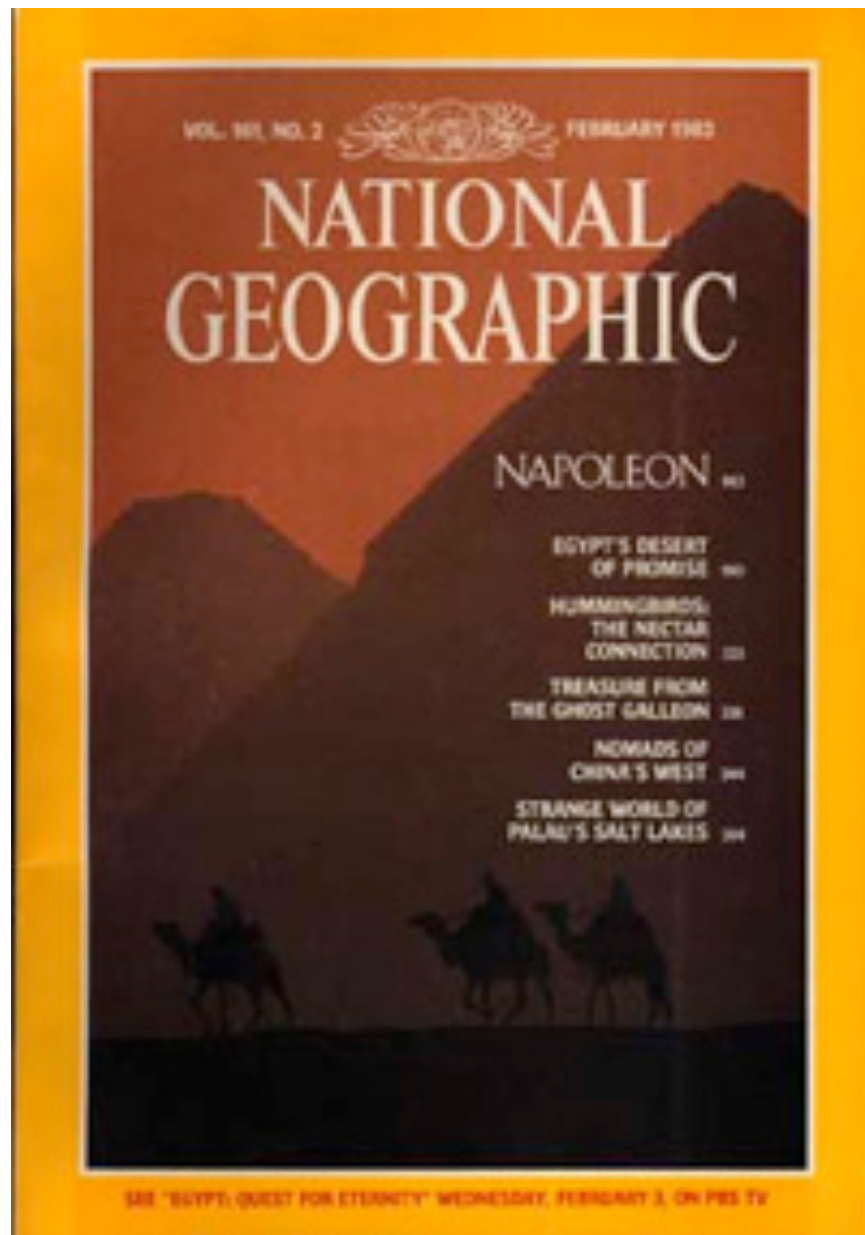
The government clearly led early advancements in digital imaging, but in the late 1970s IBM's Zurich laboratories began developing digital technology to increase the power and capabilities of microscopes.<sup>28</sup> The trend of science's involvement in digital technology,

both expanding its capabilities and applying its current uses, can also be seen with the use of an MRI scanner that produces a digital image of human anatomy.<sup>29</sup>

In the 1980s the media adopted digital imaging. It was widely used by both television engineers, to improve clarity for broadcasting, and photojournalists, to speed the transmission of photos from locations to newsrooms. In 1989 the Wall Street Journal estimated that ten percent of all images consumed by the public were digitally retouched or altered in some way.<sup>30</sup>

In 1982 *National Geographic* published an altered cover, which was later discovered and hotly debated by the public due to its alteration without demarcation. This cover was also the first largely recognized use of digital manipulation by a reputable journalistic organization. The photo, which featured the pyramids, was originally taken as a horizontal photograph. Yet the cover of *National Geographic* always features a vertical image (Fig. 4). The magazine therefore made the decision to shift the pyramids closer together in order to make the horizontal original fit the vertical format and make the cover more aesthetically pleasing.<sup>31</sup> This process, which *National Geographic* called the “retroactive repositioning of the photographer,” was strongly defended by the magazines’ editors. They stated that if their photographer had been standing at a slightly different location at a slightly different time of the day this would be the photograph that would have been taken. Yet the fact remains that this was not the image recorded. That this was a photo-illustration and not a photograph was not revealed to the public until after the authenticity of the image was questioned by several other journalists. John Long, of the National Press Photographers Association (NPAA), however, claims that this singular decision to alter a cover “damaged

[journalists'] credibility and ... [that although] taste issues have a short life span, ethics issues do not go away" (Long). This statement raises the issue that even though imaging guidelines have become more stringent in recent years, the early period of lax rules may have permanently altered the public's perception of photographic authenticity. Long claims that the continuous use of altered photographs gradually "erode[d] the credibility of the entire profession," and Long is not sure that photojournalists "can win this war" to maintain the authority of photographic images, in the face of large scale image-manipulation.<sup>32</sup> Thus digital photography's initial public brush with the media raised important questions regarding the necessity of denoting altered images, and legitimate alterations.



**Figure 2. National Geographic Cover, January 1982**

By the mid-1980s digital photography had expanded beyond laboratory and professional uses and entered the mass market. The public began to buy digital cameras for personal use as Cannon, Nikon and Sony began to market home-use “still-video” digital imaging cameras. These early cameras, however, still recorded the image in an analog format, before transforming it into a digital file. Cannon, Nikon and Sony eliminated this

step when they began marketing the first digital cameras for home consumers in 1990. This change had fortuitous timing, as it coincided with an expansion in capabilities and memory of home computers. This allowed individuals to use home computers to run image-editing software to store and manipulate personal snapshots. The creation of the CD in the early 1980s was also an important precursor to the digital camera, as Kodak began using CDs to store photos in 1991.

In the 1990s government and media agencies used digital technology for the first time in a war setting.<sup>33</sup> Americans used digital photography to record and alter the events of the Gulf War, but unlike Matthew Brady in the Civil war, these alterations were made after the image was created. The US government was also well known at this time for altering images before giving them to the media.<sup>34</sup> This time, however, rather than merely documenting occurrences for the public, the technology was also put to tactical use in weapons systems.

One of the more recent expansions in the use of digital imaging is live electronic manipulation, which allows real-time manipulation of satellite digital image feeds. This process may be used in a variety of contexts, from adding the first down line to a television broadcast of a football game to altering satellite imagery for national security purposes. In fact in many cases the same companies provide both services. Sportvision is one company that specializes in adding objects to live sporting events, such as billboards behind major league baseball games designed to increase advertising revenue for television networks.<sup>35</sup> Ivan Amato argues that this trend is likely to spread to product placements in major sitcoms as TiVo and similar DVR's allow the public to skip commercials. The North Atlantic

Treaty Organization (NATO) hired the Sarnof Corporation, a partner company to Sportvision, to go to the Allied Operations Center in Italy and transform Sarnoff's experimental photo-alteration software to a usable technique for locating the Serbian military in Kosovo and protecting NATO positions. In order to protect NATO's positions, Sarnoff designed software that replaced images that contained military units with previous digital images of the same landscape, hiding NATO's location. Sarnoff also used the current images of the terrain surrounding military installations to create a computer simulation of what that area would look like without the presence of troops. These simulated areas were then used to cloak military locations before NATO released these images to the media or foreign governments. India also released images from its satellites to the public that used similar technology to remove their military installations.<sup>36</sup>

Walt Disney's Imagineering Studio has also put the enhanced capabilities of digital technology to use, as the Imagineers have begun capturing images of aged or deceased celebrities from previously recorded footage and altering them to fill parts in new shows or movies (Amato). This use of digital manipulation once again buttresses the point that although digital technology allows greater manipulation of photographs and films, these capabilities may be transferred to images that were originally analog in form. Halestine of the Interval Corporation at the University of California Berkeley predicts that video manipulation will soon be carried to its most extreme capabilities. He states "with absolute certainty" that soon one person will be able to create an entire movie, using digital technologies to create the backdrops and costuming as well as to pull and create the necessary images of actors. Digital technology is therefore useful in a variety of settings, including entertainment; yet these same capabilities that are amusing in one context can

prove disturbing when placed in the hands of governments or other entities. Creations such as those of the Imagineers also force the question of what exactly it is that they are creating. Is the spliced image in fact simply an altered photograph, or is it a new entity? Wosk argues it is the latter.

Throughout recent decades a new phase of photography has been entered, the phase, according to Wosk, of “pseudophotography,” “pseudo” because digital photography is not quite photography.<sup>37</sup> Though the end results are similar the varying processes equate to different levels of alteration capabilities that will be discussed in the next section. In this age, she claims, the temptation to duplicity has been heightened, at times producing “politically charged photographs in which historic fact is altered.”<sup>38</sup>

#### *Alteration Since Digital Photography*

Digital alteration of photography is not merely an additive development.<sup>39</sup> Instead, alteration capabilities alter the moral landscape in which photography exists due to the greatly increased potential for manipulation. This new digital process of photography, should, in Savedoff’s opinion, carry with it new standards, ethical considerations, and criteria for assessing the value of images. Yet these shifts in the conceptualization of photography have not occurred, largely because it is difficult to distinguish between the final product of analog and digital photography, making it difficult to have a different set of standards for each medium. Furthermore, photographs’ tacit relationship with reality, as discussed previously, remains seemingly visible in the digital final product, though this physical relationship may not continue in the creation of a digital image. With analog creation it can be argued that the image was the result of a chemical process, which left



traces of light in the image. Though this same “trace” appears to be present in a digitally created image, that trace is due to a digital representation of reality, instead of chemical imprint. This confusion is furthered by digital photography’s inherent alterability. When something exists in digital form an infinite number of alterations can be completed which leave little trace behind.

While the digital composition of images allows for alteration, most photo manipulation is not done on cameras themselves. Instead, it is carried out on computers using imaging software and scanners. Thus, even photos created before the advent of digital photography, or since its advent in an analog format, may be altered, as discussed with relation to the Imagineers and movies.<sup>40</sup> The advent of digital technologies in relation to photography has, therefore, altered the entire landscape of photography. This harkens back to Bouse’s original point, that while earlier photographs may be more trusted by the public, the enhanced alteration capability of digital photography alters not only how present and future images are interpreted, but also our awareness of the potential manipulation of photographs created in the past. Although the spectator may know that a specific image was created prior to the advent of digital photography, he is also aware that the image may have been altered since then, changing the way the public views even unaltered images of the past.<sup>41</sup> It can therefore be argued that digital photography has decreased the credibility of photography in general, as one must now question all photographic images, and as it is frequently impossible for the layman to distinguish which photographs have been altered and which remain in their original condition.

It can also be argued, conversely and quite effectively, that the advent of digital technology has brought relatively few completely innovative ways of altering a photograph.<sup>42</sup> Instead existing capabilities of photographic modification have become more accessible as they have become less time consuming and less expensive, and have been marketed as a new innovation to a public that was previously only vaguely aware of such capabilities and unable to complete such modifications on their own. Digital alteration of photography and images has really meant the democratization of alteration, instead of a revolution in the field. It has also heightened the public's awareness of alteration, perhaps, as much as it has increased the frequency of alteration.

### *Digital vs. Analog*

Photography has never been static; instead it has been a constantly evolving medium since it was first introduced in the early 1800s. Yet up until this point photography was always based on chemistry and light. Joseph Niepce first developed the permanent rendering of images through light in the 1820s using bitumen of Judea, to record images before fixing them with lavender oil. He soon evolved this method into heliographs, which were made using silver nitrate. Eduard Daguerre, who was working on his own photographic process to aid him in his career as a scene maker, contacted Niepce suggesting they work together. The pair worked together until Niepce's death, after which Daguerre discovered mercury's ability to fix images, and created the Daguerreotype, which Daguerre claimed, "is not merely an instrument which serves to draw nature; on the contrary it is a chemical and physical process which gives her the power to reproduce herself."<sup>43</sup> From the earliest days of photography the idea of the mechanically produced unmediated truth proliferated, giving the photographic medium a truth-value it did not

inherently deserve. Simultaneously Fox Talbot created a similar method using the slated paper print. Concurrently with the creation of photography by Niepce, Talbot, and Daguerre, a Frenchman by the name of Bayard created a light imaging technology. With the creation of photography, as with the creation of digital technology, the new image making process coincided with a larger technical innovation that was realized by several practitioners at once. The Daguerreotype fast gained prominence above the other methods, and became especially popular for the new art form of portrait making. Daguerreotypes were a one step positive process that's simplicity originally added to their appeal. Soon, however, consumers were once again considering the Calotype, created by Talbot, a technology that while somewhat less reliable, was infinitely more reproducible and more capable of reproducing fine detail. By the 1850s glass negatives and albumen paper were the latest technological innovations; they were more reproducible and more detailed than any previous method. It may be argued that the advent of digital photography has once again pushed reproducing capabilities to a new level, as images no longer need to exist in a hard format to be seen. Now any physical requirements for reproducing images have been stripped as they may be transmitted electronically. Increased reproducibility has always been desirable in photography, as demonstrated by the return of the Calotype. Although digital technology furthered many of analog methods' capabilities, it did so in an intrinsically new way, one that is debated by photographers and philosophers alike with regards to its effect on photography.

Mark Amerika, when discussing the differences between analog and digital photography, uses a quite helpful explanation, which he derived from Vilem Flusser's *Towards a Philosophy on Photography*, one that is based on viewing the various ways of

recording images as a part of a spectrum. Amerika states that the way images are interpreted is influenced by the way they are captured, and thus argues that as technology has evolved so has the interpretation of photography.<sup>44</sup> Through the addition of digital photography to the spectrum, the artist is now freer to concentrate on personal interpretations of the space, as opposed to attempting to capture objective realities as with analog imaging. These enhanced alterability capabilities have altered the public's perception of photographic objectivity to such a degree it is no longer necessary to attempt objectivity.<sup>45</sup> Amerika's argument, however, is weakened by the fact that the assumed objectivity of photography in general is ambiguous, as the individual artist has always had the power to capture a personal scene. The claim that the camera is merely a medium for capturing an image may be made for all forms of photography, not only new digital technologies. Furthermore, while it may be true that a greater level of manipulation is more common since the creation of digital photography, making the initial act of recording the image a smaller portion of the overall equation, it is not true that there were not artists who used significant alteration after capturing an image prior to the advent of digital technologies—as evidenced by the aforementioned Rejlander.

Savedoff and Mitchell further argue that digital photography cannot be held to the same alterability standards as analog photography because it is not analog photography; instead it is a new medium unto itself.<sup>46</sup> They argue that the difference between the analog formation of a photographic image on film and the digital creation of an image through sensor reception is tantamount to the creation of a new art form. This new medium, which produces an end product strikingly similar to analog, does not in fact constitute the same process.

Digital imaging, however, gains much of its power from the fact that it is nearly indistinguishable from analog photography. The assumed authority of the older analog images is transferred to newly created digital images, increasing their assumed veracity. If this relationship is broken, digital photography may not maintain its current level of esteem. This break could cause a massive shift in the use of digital photography as a method of reporting the news, or conveying evidence, given that its authority would be lessened. Interestingly, digital photography derives its validity from its similarity to analog photographs, while this same relationship has devalued analog images as they lose credibility along with their digital counterparts. The increased ability to alter images also, as previously discussed, applies to images that were once analog in form, thus decreasing their inherent documentary worth.

Though alteration was possible with analog photography prior to the advent of digital imaging, it was used much less and required far more skill.<sup>47</sup> Thus, while in some ways alteration has merely increased with digital photography, Savedoff and Mitchell argue this increase is sufficient to warrant conceptualizing digital photography as a new medium. Furthermore, analog alteration left a trace on the original negative. Regardless of the type of alteration, it was nearly impossible to change the final image without in some way permanently altering the negative. With digital photography, however, this is no longer the case.<sup>48</sup> When the “original” of the print is merely a digital file, it becomes nearly impossible to tell if that file has been altered and which image is indeed the unmanipulated original. The true original becomes indistinguishable from the altered facsimile.

The increased amount of skill and time required to alter a photograph in an analog format meant altered photographs were the exception to the norm, as they were difficult and expensive to create. The improved capabilities of digital alteration, however, and the ease with which most changes can be applied, have led altered photographs to become the norm, in the words of Savedoff creating an environment where the “documentary usefulness of news and feature photographs is severely diminished.”<sup>49</sup> Savedoff argues that in a world of only analog photography, there were many more understood limits regarding which alterations were legitimate and which were inappropriate. But, with the expanded capabilities of digital technologies, these standards have been greatly altered if not entirely dismissed.<sup>50</sup> The new ease of alteration has led individuals to alter photographs more frequently with less contemplation of the associated consequences of such actions.

Mark Amerika takes Mitchell and Savedoff’s arguments to their most extreme by arguing that rather than digital imaging creating a new medium digital photography in fact does not exist.<sup>51</sup> He claims it “all comes down to capturing data and then digitally processing it as necessary,” because anything, not only a photographic image, may be printed via a digital process, including word-processing documents such as this or images pulled from the Internet.<sup>52</sup> He claims what is important with digital technology is the way that images, wording and other visual media are “remixed” to form a new type of art.<sup>53</sup> Thus, for Amerika, digital photography is a piece of the larger spectrum of digital art. Amerika further claims that digital imaging is not photography, as “all digital forms of expression come down to manipulating ones and zeros.”<sup>54</sup> If this logic is followed, however, then all analog imagery comes down to chemistry, and the effect of light on different

compounds. While Amerika is attempting to prove a valid point, that digital photography may have created a new art form altogether, his logic is weak, making his argument appear invalid.

In contrast to Amerika, who claims that digital technology is not photography at all, and Mitchell and Savedoff, who claim that instead it is a new medium, there is a third school that simply believes digital imaging has revolutionized, or “remediated” photography in general. This line of belief, represented by Michelle Henning, states that while digital photography is clearly created and used in different ways from analog technologies, to a large extent it is experienced and interpreted by the audience in a similar fashion. The combination of these two facts means that a new form of analysis must be applied to both analog and digital formats.<sup>55</sup> Digital cameras are made to resemble analog cameras, in exterior design, and maintain antiquated analog terminology such as ASO/ISO settings—which are references to film speed, and obviously not a concern on a digital camera.<sup>56</sup> Thus the packaging and marketing of digital cameras further emphasizes their relation to analog technology, perhaps to alleviate buyers’ fears of new technologies, and in part to maintain the tenuous relationship between the two mediums, and in doing so to continue to heighten digital photography’s validity.<sup>57</sup> Furthermore while electronics companies also make digital cameras, traditional photography firms such as Cannon, Olympus and Minolta are the primary marketers.<sup>58</sup> Henning claims this tendency to make digital photography conform to the precedents of analog photography is detrimental to the possibilities of digital technologies, which far exceed those of analog.<sup>59</sup> The fact that digital technology has merely remediated analog photo making, in the mind of the third school, is not due to digital photography’s inherent capabilities, but to the way in which it has been

presented and marketed to the public, and understood by the corporations that sell it.

Henning is also quick to point out that, as in analog photography, in early digital technologies the light was first sensed by the camera but then unlike analog formats it was interpreted through digital means. Thus, according to Henning, digital photography is in no way “less photographic than chemical analog is. It means it deploys very different processes” for the same result.<sup>60</sup>

Yet another school of thought regarding the distinctions between digital photography and analog photography is to think of them neither as independent art forms, nor as the same thing entirely, but instead to view the two processes on a continuum with painting.<sup>61</sup> When analog photography was first created, artists and collectors alike predicted the death of painting. Yet as time continued painting did not die; instead its uses merely changed. With the creation of digital photography, analog technology is now forced to find its own niche in imaging culture. Some argue that this niche is located between traditional photography and painting. Digital photography provides the realism and intricate relationship with reality of analog photography, yet it also provides a higher degree of alterability, which places it somewhere between the two art forms.<sup>62</sup> As digital photography grapples for its place among previous imaging technologies, the public, news media and governments must decide how to react to this innovative technology.

## REACTIONS TO DIGITAL ALTERATION

### *Public's Responses*

The public is aware that photo alteration is possible, because many people have altered a photograph. Whether someone has cropped out a former lover, changed an image



to black and white from color, or simply removed red-eye, most individuals have used computer software to change a digital image. Yet being aware that this type of manipulation is possible and actually using this knowledge to actively scrutinize every image one sees are two different concepts. When most people pick up the newspaper their first thought is not, "I wonder what in this image could have been, or probably was, altered?" The image is merely interpreted for its accepted purpose, to provide substantiation for the written story it accompanies. Thus the photo is accepted at face-value, as proof of an incident, due to photography's previously discussed inherent claim to truth.

In the context of newspaper journalism it is important to note that it may also rightfully be claimed that one can alter the written word. One understands when reading any text that simply because something is written down does not imply that it is factual information or the truth; instead the interpretive dimension of the work is understood from its context. The average reader understands that fairy tales are fiction, that editorials are opinion, and that journalism is meant to inform the public of the truth. This same understanding does not exist for photography; while the public interprets images in newspapers as documenting the stories which they are a part of, and images in museums or galleries as works of art unto themselves, there is not necessarily a truth judgment imposed on the latter artistic images, while the former represent implied reality. This assumed reality of journalistic photography is rightfully coming into question since the advent of digital photography.

The context, in which a digital photograph is used, as with any image, is an important factor in the audience's interpretation of the photograph's reliability. Context also affects the audience's assessment of whether or not images are likely to have been altered.<sup>63</sup> In *Photographs and Contexts*, Terry Barrett examines the importance of contexts in the interpretation of photographs using Robert Doisneau's photograph entitled "At the Café, Chez Fraysse, Rue de Seine, Paris, 1958." This photograph shows a man and woman sitting at a bar, with the woman gazing at her drink and the man staring at her. This seemingly simple image is interpreted in vastly different ways depending upon the context of the photograph. When viewed in the Museum of Modern Art, it is viewed as an exhibition of photographic mastery; yet when viewed in a temperance brochure, it appears to be a warning against the moral ambiguity that comes with alcohol and to liken the woman to a prostitute. This drives Barrett to claim that "a picture is about what it appears to be about," meaning that when a photograph appears to be about temperance from the context in which it was placed, the reader interprets it as such.<sup>64</sup> Likewise, when a photograph is in a newspaper the reader interprets it as a documentary image because it is understood from its context that this is its intended role.

Furthermore, the understanding of a photograph varies when it is interpreted from different historic perspectives.<sup>65</sup> While this shift is demonstrated with the decreased truth-value placed on all photographs since the advent of digital photography, it is also noticeable apart from the technological advances of photography. When a historian looks at a photograph, for example, he may use any detail to help determine the date and location of that photograph. This can range from using the clothing of subjects, to advertisements in the background, to architectural styles and landscapes to place the information provided

by the image in a larger social and cultural perspective. If, however, any of these details are removed by either digital or traditional means, the authenticity of this photograph is weakened, as is the ability of the historian to view it from the appropriate historical framework.

Context may also be used when interpreting the appropriateness of digital alteration in photojournalism. When one sees an image of a 700-year-old baby on the cover of the *National Enquirer*, one assumes from the context (its placement on a tabloid cover) and previous knowledge (that the chances of a 700-year-old baby are exceedingly rare) that the photo was most likely digitally altered.<sup>66</sup> There is in some ways less moral ambiguity associated with this photograph's alteration, as it can be assumed by the intelligent member of the public that the chance of such an event occurring are infinitesimal. On the other hand when the reputable newsmagazine *Time* produced an image of O.J. Simpson that was significantly altered from the original mug-shot it was not necessarily possible for the averagely intelligent public to gather that this image had been altered. This cover, which was published on June 27, 1994, appeared simultaneously with the same image on the cover of *Newsweek*. The juxtaposition of these two images allowed the public and journalists alike to see that the image on *Time* had been significantly darkened. Thus on the cover of *Time* OJ Simpson actually appeared to be blacker than on the cover of *Newsweek* or in the original mug shot. While this obviously raises the question of how race is perceived in American culture as related to crime, it also raises the question of digital alteration. The illustrator who made the decision to darken the mug shot of Simpson, Matt Mahurin, stated that he "wanted to make it more artful, more compelling."<sup>67</sup> Furthermore, Bryce Zabel claims this original image was darkened by *Time* to show the

public in a tangible form the metaphoric shadow that had been cast over the sports superstar.<sup>68</sup> Yet when journalists are trusted to report the news the question remains—was this alteration ethical? Whether Mahurin’s alteration was ethical or not, *Newsweek* obviously made the decision that it was unnecessary by publishing its cover image without manipulation. *Time* also showed that it second-guessed its original decision when it revoked the initially released O.J. Simpson cover after substantial criticism from minority groups. *Time* released a second version, which still showed Zabel’s metaphoric shadow, yet this time placed it behind O.J. Simpson instead of across his face.<sup>69</sup> Also *Time* has restricted the permissions on reprinting this cover, not allowing any scholarly publication to legally reproduce this cover in any form for any purpose; a decision that furthers speculation that perhaps *Time* has, rightfully, re-considered this use of digital alteration. Finally, this image raises the question of the motives behind any act of photo alteration. Was its creator a racist, or simply an artist looking for a more sensational image to increase copy sales?<sup>70</sup> While the true answer to this question may never be fully known, it is important that varying motives may change the image portrayed to the public.

Barbara Melzer claims that alterations of images, even of documentary news scenes, are not a threat to news journalists’ credibility as long as these manipulations are obvious. In fact, she goes so far as to claim that some artists intentionally make some altered images obvious. To demonstrate this point, however, she uses the image of Martha Stewart previously discussed. She claims that the average reader immediately detects that this image is a fake, and thus that the illustrator is fulfilling symbolic goals while not fooling the public. Yet while it can be argued that this is an option of photo-editors, it is much more difficult to argue that the manipulation of Stewart’s body is easily apparent.

The public often views photography as unmediated reality, yet its easily alterable content and context clearly show that this is not the case. When viewing a photograph, Barrett rightly concludes, the audience must be mindful of both the external context and the internal content of the photo, and be aware of how both contribute to the individual's reading and interpretation of a given photograph.<sup>71</sup> Viewers of photographs must be aware that one naturally attempts to reconstruct the scene in which the photograph was created, yet if that photograph was altered, it portrays a scene which never existed, thereby making the recreation exercise futile, further making the understanding of such photographs—especially how they may be properly used for documentary purposes—questionable at best.<sup>72</sup>

Meltzer, a photography educator, wrote an article calling for increased public awareness of photo manipulation through teaching. Meltzer stresses the importance of reading images. As discussed previously, photography is a language, and according to Meltzer it is a language that must be taught in schools. Just as one learns to read the written word, one must learn to interpret visual images and evaluate their validity as well as their authenticity. Paul Messaris further stresses the need to teach the public to “read” photographic images, stating that merely having this knowledge will help the public better understand the visual representations they receive and thereby safeguard against counterfeits and deception.<sup>73</sup> Neri goes so far as to state that image reading should be taught in elementary schools, an idea which she adopted from Paola Pallottino.<sup>74</sup> They suggest that, similar to the study of iconography frequently required in the past, these skills will help students prepare for the jobs of the future, which will most likely require photo-editing and knowledge of alteration capabilities.<sup>75</sup> While some, like Melzer, believe that the

best way to integrate new digital technology is to teach photographic interpretation in schools, others believe the answer lies in regulations, such as those proposed by the United States government.

### *Government Reactions to Digital Alterability*

In regards to the need for legislation limiting the use of real-time digital imaging manipulation, John Pike of the Federation of American Scientists in Washington D.C. states that this software does not pose a credibility threat for photography, as the risks are simply too great if an organization or government is caught attempting to fool the public.<sup>76</sup> This idea, however, is disproved by the continual use of this type of technology by the American government and the Indian Government. Though these entities admit to altering the images they produce, they also claim that the national security interests this manipulation protects outweigh the need for accuracy in reporting. While this may be the case, it is interesting to contemplate where the line lies between protecting national interests and lying to the public. Pike goes on to state, however, that the “Achilles heel” of his claim is the Internet.<sup>77</sup> He claims that while governments and news organizations most likely value their credibility too much to risk displaying altered images, there is no such filtering mechanism on the Internet, and that once an image is released into cyberspace it may be spread at a rate that makes the documentary value of the photograph inconsequential. Though the image may be ill-conceived, everybody will still be aware it exists, thus giving it a latent authority, though it may be false. Livingston also brings an important point to this discussion, as he contemplates the effects a few public alterations of photographs may have on the public’s reliance on images.<sup>78</sup> He claims that although this may only be a passing

phase, even a few unfortunate forays, such as the *National Geographic* pyramids, may lead the public to permanently question the integrity of photographic sources.<sup>79</sup>

The potential alterability of photos, however, has proved at times as useful as it is intimidating to governments. One example of this was a 1989 United States claim to a United Nations Security Council. The United States had shot down a Libyan plane, which America then claimed had been armed. To prove this the US produced photographs, albeit blurry ones, to substantiate its argument.<sup>80</sup> The Libyan government claimed the images had been manipulated by the United States so it appeared as though the Libyan MiGs had been armed. Thus at the same time that governments were beginning to become aware of the potential for photo alteration and to contemplate legislation against it, the very idea that a photo may have been altered drew questions of ethics into a debate, and raised questions about the reliability of a super power.

The most far-reaching attempts at reform came from the same place digital photography originated—the United States Government. The Artists' Rights Foundation was established in Hollywood in the late 1980s to protect existing films from future digital alteration and tampering, and lobbied Congress so that in 1991, 1992, and 1993 Congress considered the Film Disclosure Act.<sup>81</sup> These bills, which are often used as part of the dialogue regarding the alteration of digital images, were actually designed to protect the rights of movie creators. Under these bills the creators of a movie are protected from changes made to the movie by distributors after the creative team has finished its work. These acts required the distributor to clearly mark on the packaging any changes that had been made since its completion by the artists, and would have allowed the artists to have

their name removed from the final work if they were unsatisfied with alterations made.

The artists would also have the right to bring a civil suit against the distributor or studio if they felt the release of the altered film would degrade their professional reputation.<sup>82</sup>

While these bills were created in part in reaction to advances in digital alteration technology, they were not drafted solely for this purpose, again demonstrating the point that many alterations are made by analog means, as well as through digital technologies; thus this bill was designed to protect the artists in general. The huge increase in available digital technologies has clearly increased the distributor's or the studio's ability to alter a film without the permission, or knowledge, of the original artist. Furthermore, while these bills apply to any image released on the Internet, video cassette, or through television broadcast, they are only applicable to moving images, and therefore do not protect photojournalists in the print media from unwanted editing by a newspaper, or unethical editing by a supervisor.<sup>83</sup> They also do not require print media to disclose to the public which images have been altered; the bills were designed to protect intellectual property and copyright, not photography's reliability. Furthermore, any image must only be labeled if the artist feels it is a detriment to his or her work; there is no safeguard for the public to be made aware that an image, that is intended to report the news, such as from a major newspaper, has been altered. Defensor Santiago presented a similar bill to the Philippine Congress in 2007, though this bill has not yet been voted on.

While the federal government has discussed bills to mark the use of digital imaging, they have also invested in technology to detect altered photographs. The Federal Bureau of Investigation funded Dr. Fani Harid, an applied mathematician at Dartmouth, to create algorithms used to identify digitally altered images.<sup>84</sup> This software, which in part was



designed to ensure the veracity of digital images used in court, uses mathematics to determine unusual repetitions in the images, which may be due to copying and pasting from another portion of the image in order to remove an unwanted object.<sup>85</sup> As the government continues to detect and in some cases regulate the use of digital imaging, media outlets have begun to develop their own regulations.

### *News Outlets' Responses*

Grazia Neri claims in *The Digital Journalist* that the reaction of the news media to photography in general has been one of fear, and that print media have thus tended to ignore issues associated with photography, including digital imaging. The apparent strength and accuracy that a pictorial representation provides of an event has been an interesting parallel with linguistic explorations. Instead of attempting to teach the public to interpret its meaning, or understand how it may be altered, the subject has been left largely unmentioned. This fear of photography has led editors to request that photographers record images that fit the written stories they wish to illustrate.<sup>86</sup> Even prior to the advent of digital technology, photographs were created or altered to fit the narratives of a situation and the preconceived notions in the editor's, audience's and photographer's minds. A common example of narrative photography, Neri claims, is the portrayal of the "disheartened or homogenized. The elderly and immigrants are two excellent examples of this," as they tend to be portrayed in generic scenes which fit the public's notions.<sup>87</sup> News organizations have subordinated images to substantiation of the written word and avoided discussing their contributions, and the limits of those contributions, in reaction to the immense power they represent. With the advent of digital technology, however, the alteration capabilities of photography in general inevitably became an issue, although

analog alteration techniques and ways of reading all photographic images were never fully addressed.

The problem is clearly framed by Andy Grundberg, writing in *The New York Times*:

In the future, readers of newspapers and magazines will probably view news pictures more as illustrations than as reportage, since they will be well aware that they can no longer distinguish between a genuine image and one that had been manipulated. Even if news photographers and editors resist the temptations of electronic manipulation, as they are likely to do, the credibility of all reproduced images will be diminished in a climate of reduced expectations. In short, photographs will not seem as real as they once did.<sup>88</sup>

In 1989 USA Today editor Folwell stated that although the potential to alter an image had always existed, with the advent of digital photography the proof that an image had not been altered was taken away.<sup>89</sup> In the days of analog photography if an editor was accused of altering an image, he simply produced the untainted negative, and the charge was dropped; with the advent of digital technologies such an original no longer exists.<sup>90</sup>

Clearly, with the initial proliferation of digital technology, journalists began assessing the new relative value of photography as proof and corroboration of the written word. Simultaneously, journalists began designing rules to limit the use of digital altering capabilities and maintain the photograph's reliability. One example of this was the Associated Press, which made a public statement in the mid-1990s, when photo alteration was beginning to become a topic of debate, that the content of a photograph would never be altered; but the AP did not go so far as to eliminate digital manipulation entirely. More

importantly, it also did not clearly define what constituted “altering content,” leaving this open to the interpretation of the individual photographer or photo illustrator.

The National Press Photographers’ Association (NPPA) simultaneously called for a new set of standards, which was issued in 1990 when the NPAA approved its statement of principle that was revised in 1991 and incorporated into the bylaws in 1995. Included in these standards was a code of ethics which stated in reference to digital photography that “as journalists we believe the guiding principle of our profession is accuracy; therefore we believe it is wrong to alter the content of a photograph that in anyway deceives the public.”<sup>91</sup> The NPAA goes on to state in its code of ethics that it believes the standard ethics of photojournalism in analog formats should be extended to digitally created images, and that any manipulation which would have been considered inappropriate under those earlier circumstances remains inappropriate even with digital imaging. In *Ethics in the Age of Digital Photography*, John Long, the ethics co-chair and past president of the NPPA, further states that “the advent of computers and digital photography has not created the need for a whole new set of standards.”<sup>92</sup> This is based on the claim that digital photography is not in fact a new medium, but merely a new method of processing images. Therefore the same principles, which guided the alteration of analog images, should be maintained in the new format.

Digital Custom Group, Inc., released its “Model Ethic Guidelines to Protect the Integrity of Journalistic Photographs” in 2002.<sup>93</sup> This first release of the guidelines stated that alterations that “compensate for limitations and defects inherent in digital process” are allowed, but that the photo must maintain its “true-to-life” accuracy.<sup>94</sup> These guidelines

were further explained to mean that alterations of color balance, lens distortion, focus and glare, or “other modifications considered to be presentational changes were allowed.”<sup>95</sup> Yet adding or removing objects was prohibited if the context of the image was altered. If this integrity remained, however, then the insertion or deletion of elements within the original image was considered appropriate.<sup>96</sup> These guidelines, however, left important room for photographers’ personal judgment. As has previously been discussed, the perspective of the photographer or editor may affect which elements he believes are pertinent to the integrity of the image. Furthermore, when photos are used in multiple and varying contexts, as discussed by Barrett, an object that was initially unimportant may later hold immense value.

The 2002 “Model Ethic Guidelines” went on to prohibit any alteration that could alter the viewer’s perception of time or space as well as stating that the “desirability” of the subject should never be altered. Therefore these guidelines disallowed some of the most common forms of digital alteration, including removing the wrinkles from a celebrity’s or political figure’s face, and by doing so altering the audience’s perception of time, or altering a photograph to make a person, or in the case of an advertisement, a product, look more desirable. While these guidelines are intended only for professional photojournalism, Fred Showker of Digital Customs Inc. states that anyone who produces an image must examine his personal motives for its creation and how the image will be distributed before he alters it in any way. Showker also warns artists and editors against becoming “spin-doctors” by using new digital capabilities to create the most flattering, or sensational images, depending on the goals of the newspaper and personal opinions of its producers, instead of the facts the photograph is intended to report.

Grazia Neri, a columnist for *The Digital Journalist*, uses a personal approach for defining the ethics of digital alteration in photojournalism. Neri states that the first ethical decision made by the photographer has nothing to do with new technologies, but instead lies in his deciding which story to tell with his images and the manner in which he will use photographs to tell it. In order to maintain journalistic integrity, this decision must be made from a perspective in which the photographer “safeguards the truth” he conveys to the public, rather than that of creating an image for personal or organizational motives. It is also important when considering digital alteration to respect not only the integrity of the original photograph, but also the character of the subject.<sup>97</sup> In some ways, digital technology has increased photojournalists’ ability to protect the dignity or safety of those they shoot, such as when the faces of victims or witnesses are blurred or eliminated entirely. Thus while digital technology has clearly changed the capabilities of photo-editors to manipulate the truth, at times this power serves to allow images to be printed that would have been previously left undisclosed to protect an individual identity. The value of this skill, however when compared to the indiscriminate uses it has suffered, remains unclear.

While photographers’ associations and some media sources have made attempts to regulate alterability in photographic journalism, less than five percent of photographers are satisfied with the use of their work.<sup>98</sup> This is because much of the digital editing takes place in newsrooms by editors instead of being done by the photographers themselves, a practice which was discussed in relation to editing of images in the Film Disclosure Act. The decisions these editors make are also affected by a vast array of factors outside of strict journalistic ethics, such as the cost of images, spaces allotted for them in the final layout of

the paper, and the deadline for printing. This means that exclusive of digital alteration, photographic decisions are based on weak premises, yet with new capabilities of digital technology, images may be forced to fit these standards.

Michael Hoffman, the editor of *Aperture* magazine, breaks down the basic ethics of digital manipulation into three points.<sup>99</sup> He states that first, the photograph must be produced for the public in the finest grade possible, a requirement that is obviously frequently ignored by newspapers and other media interested in profit. Second, the publisher must respect the wishes of the image's creators, ensuring that the publication is not unduly influenced by marketing needs, or current aesthetic trends. Finally, Hoffman requires that the image "be placed in a context increasing the ethical, intellectual, and spiritual commitment of the spectator."<sup>100</sup> Thus Hoffman creates image ethics that may be considered with or without digital capabilities to enhance photography's credibility.

*Time* magazine created its own commentary on the impact of digital photography in its 1989 issue entitled "150 Years of Photojournalism." This issue showed the transition of images throughout the history of photojournalism and ended with a digitally altered image of Edwin Aldrin. It showed seven Aldrins walking on the moon and had been created in the Home Box Office (HBO) studios using the original NASA image of the singular Aldrin on the moon.<sup>101</sup> This event, which had obviously never existed in reality, resulted in an image that used the metaphor of space, "the final frontier," to show the new frontier which photojournalism was entering, an era where the impossible was now possible, and where things which had never happened could be "proved."

Scientific journals have also struggled with the digital alteration of photo submissions for journal articles. *The Journal of Cell Biology* went so far as to institute a test of all photo submissions beginning in 2002 to identify fakes.<sup>102</sup> This test finds that twenty-five percent of images violate the journal's submission code for images. The journal's editor, Ira Melman, however, said that very few of these images are actual forgeries; instead only one-percent are entirely false images. Photography editors of major publications, however, continue to emphasize that flat out faking of photographs is rare. Instead it is commonplace for a photographer to "over-correct" his work, and exceed traditionally agreed upon limits of altering images.<sup>103</sup> The journal, which requires that all images be submitted digitally, first began to notice the tell-tale signs of Photoshop alterations when they transferred the images from the format of submission to that of publication.<sup>104</sup> The journal's published guidelines state that "it is all right to adjust the brightness or color balance of the whole photo, but not to obscure, move or introduce an element."<sup>105</sup> The interesting part of the test by *The Journal of Cell Biology*, however, is that they use the same program which most of the submitters used to edit the images, Photoshop, to catch the fakers.<sup>106</sup> This is similar to *Little Green Footballs* catching Hajj's fake as the tools of Photoshop have become easily detectable to many photographic professionals. *Science* has since followed suit, requiring all images in their journal to be checked for alterations.<sup>107</sup> *Cell Magazine*, however, stated that they would not begin to test images provided by researchers, as they believe the "ethics of presenting true data should be enforced in a scientist's training, not by journal editors."<sup>108</sup> Even in leading scientific publications the line between editing and manipulation remains unclear. This confusion extends to popular journalism as has already been seen.

Thus, while many different entities from governments to journalists, attempted to regulate the use of digital photography, it may be argued that none of them were specific enough, as all the regulatory programs vary from one another, and they have all resulted in at least a few questionable uses of alteration. Yet it can be argued that no guidelines that are specific enough can be created, as each photograph exists in its own unique set of contexts, which determine the alterations that are ethical.

### CONCLUSIONS: WHERE DO WE STAND?

Twenty years after digital photography became a part of mass culture, there is still no consensus on the effects it is having on society, or on how the new capabilities of manipulation should be addressed. Artists, editors, and the public agree that digital technologies are new and different. This is where the consensus ends. No one has come to a largely accepted conclusion as to whether it is a new technology entirely, or simply an extension in the ongoing evolution of photography. Furthermore, no one has made hard and fast rules on exactly what should be allowed in terms of photographic alteration, because as it turns out strict, universally applicable rules are impossible to make. What in one situation may simply clarify an image, such as altering the color scheme, may in another situation completely alter the meaning of the photograph, as exemplified by the O.J. photo that *Time* altered. Thus the best that can be accomplished is for everyone to constantly question the validity of the photos they consume, while simultaneously trusting that the editors and photographers are accurately documenting events. With new technologies come new capabilities, and new potential for exploitation, yet it remains up to individual photographers and news agencies to ensure that they present the truth to the best of their ability.



For better or worse, the digital age has come to photography, and it is here to stay.<sup>109</sup> While this fact may not be reversed, it should be recognized for the advantages it provides. For one thing, it has allowed greater cataloging capabilities for everyone from individual artists to important institutions such as the Museum of Modern Art. Digital transference of photographs has also allowed for greater access to images, through the Internet, and other means of mass communication. While seeing a new photograph once required a box of slides and a projector after locating an institution that actually possessed the slide, it is now merely an Internet search away. The enhanced ability to spread images is also advantageous for new photographers, who may use the Internet and digital technology to transmit their photographs to more potential patrons.

### *Tag the Analog*

Thus far it seems as though most authoritative bodies have approached the topic of marking digital alteration from a single stand point: that one should denote images which have been altered. Yet in a world where the public rarely sees images that are not digital in either conception or alteration, this seems counter intuitive. If something is the norm, it typically does not deserve recognition. Take audio recordings for example: while it is not indicated on every album the public consumes, it is understood by most patrons that the songs one hears were never recorded in exactly the form in which they receive them.<sup>110</sup> Instead, each member of the group, especially in popular or rock music, was recorded independently; then these tracks were mixed to form the album, similar to the way Rejlander designed and assembled his composite prints. When a track is in fact a single recording, however, this is indicated on the album, typically with the label of “live” recording.<sup>111</sup> Though this designation does not mean that the recording is unedited.

It can be argued that with regard to these two different types of recorded music, live and studio mixed, neither is inherently better than the other. Instead, they simply have different goals and serve different purposes for their consumers. The same can be said about photography: while neither digital nor analog photography is inherently better, each technology serves different purposes using different means, and the public must be aware of these differences. Thus, the alternative to marking digital images should be contemplated, that is marking only those images that are not digital in any way. Such images would be defined as images that were never processed in a pixel form, but instead were analog from start to finish. It must, however, be recognized that, as has been referenced again and again throughout this research, being analog does not equate to the image being inherently true. The image may still be staged, or altered using less technologically advanced means. Thus, the image could still be a construction of a desired reality instead of a depiction of the real world.

Denoting an image as analog would not be to declare it true. Instead, this mark would merely indicate to the reader that one might use commonly understood ways of interpreting photographic imagery with this image. While it is still true that the consumer of this image must be conscious of potential fabrication, it would not be true to the same degree it is true of digital images.

Furthermore, it is true with most images that the label, or in the case of journalistic photograph, the caption, is as important as the image itself.<sup>112</sup> The caption of a photo provides the all-important context. This context allows the reader to determine what weight should be given to the validity of the picture, by explaining where and when it was

taken, and what the photographer intended it to express. Henning, however, argues that it is the very lack of context that allows a photo to be “available for aesthetic contemplation.”<sup>113</sup> As in a gallery or museum, it is the fact that one views a photograph as simply that, a photograph, and not as corroboration for a written article, that allows one to evaluate it on purely visual terms. Yet this cannot be entirely correct. First of all, many galleries and museums do, in fact, tell you location of the image, or the intent behind its creation. Second, while it may be true that some artists leave images with vague titles, or no titles at all, others very carefully title them to include dates, locations, names or even emotions. Titles such as these clearly provide a context by which one is to evaluate the work. Finally, the very fact that the image is displayed in a gallery or museum is a context. This context informs the audience that the image is to be viewed as an artwork, and therefore the individual looks at it from an aesthetic point of view, though this is too simplistic of a view. Chris Ofili’s exhibit at the Brooklyn Museum of Art, which included images created with elephant dung and the Virgin Mary depicted with pornographic images, clearly challenged the statement that what is in a museum is inherently art. Although some patrons felt that these images were defensible precisely because they were art. The internal context of the image will also always be present regardless of the surroundings, and frequently the background in a picture, or the surrounding events, cause one to view the image as more than a myriad of objects, but instead as a representation of an event. Thus, though an image may lack context in the form of a news article or a caption and by-line, it is nearly impossible to place a photograph in a setting where it is completely devoid of context and may be evaluated solely based on aesthetic merit.

*But isn't that the point?*

Alteration is not new, nor is it inherently bad; it is simply an expanded and different capability, and should be treated as such. It is only when the new digital creations are assessed in the context of the old analog expectations that there is a problem. As has been discussed, digital images can lie. It is now easily apparent that photographs can no longer be inherently associated with truth, although that was never really the case to start with. Though a picture may be worth a thousand words, it cannot be assumed that those thousand words are correct. With the beginning of photography came the commencement of photo alteration. With digital imaging, this capability has been taken to a new level, with wider accessibility to the public, and greater economic feasibility and capabilities for all. Indeed, the increased alterability of images it can be argued is ultimately the point of digital photography.

It seems the public is too quick to accept that digital photography has this new power. If one were to present a senior thesis that merely stated that digital photographs can be altered the topic would invariably fail. It is assumed that digital photographs can be altered, as most of us have altered our own pictures. Yet there is a gap between understanding this fact and applying that knowledge in everyday interpretations of the news.

Take for instance the New York Times photo that showed Groucho Marx and Rambo at Yalta. Looking at this photo, even those individuals most unaware of history and digital imaging could safely, and rightly, assume that the image had been digitally altered. One assumes this because of the context of that image. It does not take a rocket scientist to

determine that a fictional character and comedian were probably not at a major diplomatic event. Furthermore this image was originally featured in an article about how to fake digital images. This image also demonstrates the ability of digital technology to alter images that were initially in analog form. Yet the public fails to apply this same knowledge to everyday news photos. When flipping through the newspaper most people only contemplate that an image may be altered after it appears to be false. If the photo does not question our expected reality, we do not consider the possibility it may have been altered.

Digital technology is useful in part because it makes images alterable. This is how the digital medium has largely superseded analog techniques. Digital technology also allows for faster communication of images between distant locales, as seen by NASA's early adoption of digital photography. Its primary draw, however, has been its enhanced alteration capabilities. It is ironic, therefore, that the same capability that gives digital photography its usefulness also causes the majority of debate surrounding its use. It must be recognized that enhanced alteration capacity is in effect the essence of digital photography and thus a trait that should be recognized but not devalued.

While it is true that many photographs are now altered, and that some of these alterations provide a false sense of the world, there are limits to these alterations that are not created by news organizations or individuals but which instead are dictated by reality. The average consumer of a photograph typically has a general idea of what the scene that is being represented should look like. For instance it is understood that land should lie below the sky and that people are typically larger than insects. Thus alterations that would violate either of these norms are guarded against by reality and convention. If the photographer's

goal is to be believed, he cannot stray too far from conventional reality. The range of manipulations is usually relatively small. Through both altered and unaltered images, digital technologies have provided artists with greater capabilities in this field, yet the barriers of what could conceivably be reality have remained largely unchanged.

*How much should we trust photographs?*

When it comes down to the absolute importance of this topic, the subject really narrows down to one simple question—how much should one trust photographs? Digital photographs, all photographs, in fact, should be trusted to a “reasonable” degree. Clearly this is a vague statement by an author who has heartily critiqued the vagueness of standards proposed by governing bodies thus far, yet, it cannot categorically be stated how much one may trust photographic evidence. The Martha Stewart and Adnan Hajj examples show that the degree to which an image may be trusted may not be based solely on the context in which it appears. Images such as the 1982 cover of *National Geographic* show that one cannot always use internal clues in the photograph to detect whether an image is in fact a fraud, though the Rambo image demonstrates that sometimes this process is successful. Thus perhaps the best analogy that can be made is that photographs should be trusted about as much as the neighborhood busybody in any 1950s television show. While they provide a wealth of information, some of it true, some of it fictitious, the consumer must always be aware of the source from which it comes, and remain a critical consumer of the knowledge he receives. Previous knowledge of the situation must always be taken into account, and the fact that photographs, along with busybodies, may lie for personal benefit.

Perhaps, however, digital photography has actually helped the public interpret photography. While it was previously latently assumed that one could trust photographic images, recent scandals such as the Hajj image force this ideal to come into question—with all photographs. Analog photography, which always should have been questioned, is now questioned purely because it is indistinguishable from digital images. Thus though digital photography has lessened the truth-value associated with all images it has done so to an acceptable degree, as the public may now question all images—a practice which should have existed since the 1800s.

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<sup>1</sup> Roman Jackson, *Language in Literature*, Cambridge: The Belknap Press of Harvard University Press 1987, 24.

<sup>2</sup> Grazia Neri, 'Ethics and Photography,' *The Digital Journalist*. <http://dirckhalstead.org/>.

<sup>3</sup> William J. Mitchell, *The Reconfigured Eye: Truth in the Post-Photographic Era*, Boston: MIT Press 1992, 29.

<sup>4</sup> Barbara E. Savedoff, 'Escaping Reality: Digital Imagery and the Resources of Photography,' *The Journal of Aesthetics and Art Criticism*, 55:2 (Spring 1997), 202.

<sup>5</sup> *Ibid.*, 208.

<sup>6</sup> *Ibid.*, 208.

<sup>7</sup> Mitchell, *The Reconfigured Eye*, 24.

<sup>8</sup> Bernd Hueppauf, 'Emptying the Gaze: Framing Violence through the Viewfinder,' *New German Critique*, 72 (Autumn 1977), 17.

<sup>9</sup> Terry Barrett, 'Photographs and Contexts,' *Journal of Aesthetic Education* 19:3 (Autumn 1985), 55.

<sup>10</sup> *Ibid.*, 55.

<sup>11</sup> Hueppauf, 'Emptying the Gaze: Framing Violence through the Viewfinder,' 35.

<sup>12</sup> Barrett, 'Photographs and Contexts,' 62.

<sup>13</sup> Maria Aspan, 'Ease of Photo Alteration adds a Hurdle for News Outlets,' *International Herald Tribune* (14 August 2006).

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- <sup>14</sup> David Pillinger and Ashley Schiller, personal communication, April 2008.
- <sup>15</sup> Hueppauf, 'Emptying the Gaze: Framing Violence through the Viewfinder,' 40.
- <sup>16</sup> Edward Steichen, 'Ye Fakers' Camera Work, 1:1 (January 1903), 48.
- <sup>17</sup> Derek Bouse, 'Restoring the Photographed Past,' *The Public Historian*, 24:2 (Spring 2002), 11.
- <sup>18</sup> Ibid., 11.
- <sup>19</sup> Ibid., 11.
- <sup>20</sup> Jerry Lodriguss, 'The Ethics of Digital Manipulation' Catching the Light, [http://www.astropix.com/HTML/J\\_DIGIT/ETHICS.HTM](http://www.astropix.com/HTML/J_DIGIT/ETHICS.HTM)
- <sup>21</sup> Ibid.
- <sup>22</sup> Mitchell, *The Reconfigured Eye*, 200.
- <sup>23</sup> Ibid., 200.
- <sup>24</sup> Steichen, 'Ye Fakers,' 48.
- <sup>25</sup> Mitchell, *The Reconfigured Eye*, 3.
- <sup>26</sup> Ibid., 11.
- <sup>27</sup> Ibid., 12.
- <sup>28</sup> Ibid., 11.
- <sup>29</sup> Ibid., 12.
- <sup>30</sup> Claire Ansberry, 'Alteration of Photos Raise Host of Legal, Ethical Issues,' *The Wall Street Journal*, (26 January 1989), B1.
- <sup>31</sup> H. Farid, 'Digital Doctoring: Can We Trust Photographs' Deception Motives and Consequences (2007), 3.
- <sup>32</sup> John Long, 'Truth, Trust Meet New Technology' *The Electronic Times* (6 October 19989).
- <sup>33</sup> Mitchell, *The Reconfigured Eye*, 13.
- <sup>34</sup> Ibid., 17.
- <sup>35</sup> Ivan Amato, 'Lying with Pixels,' MIT Technology Review, (July/August 2000).
- <sup>36</sup> Ibid.



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- <sup>37</sup> Julie Wosk, 'Review The Reconfigured Eye: Visual Truth in the Post-Photographic Era,' *Technology and Culture*, 35:3 (July 1994) 640.
- <sup>38</sup> Ibid., 640.
- <sup>39</sup> Savedoff, 'Escaping Reality: Digital Imagery and the Resources of Photography,' 201.
- <sup>40</sup> Bouse, 'Restoring the Photographed Past,' 37.
- <sup>41</sup> Savedoff, 'Escaping Reality: Digital Imagery and the Resources of Photography,' 212.
- <sup>42</sup> Michelle Henning, 'New Lamps for Old: Photography, Obsolescence and Social Change,' in *Residual Media*, University of Minnesota Press 2007, 59.
- <sup>43</sup> Robert Hirsch, *Seizing the Light: A History of Photography*, Boston: McGraw Hill Higher Education 2000, 13.
- <sup>44</sup> Karen Jacobs, 'A Conversation with Mark Amerika,' *English Language Notes*, 44:2 (Fall/Winter 2006), 151.
- <sup>45</sup> Ibid., 152.
- <sup>46</sup> Savedoff, 'Escaping Reality: Digital Imagery and the Resources of Photography,' 210.
- <sup>47</sup> Ibid., 210.
- <sup>48</sup> Ibid., 210.
- <sup>49</sup> Ibid., 211.
- <sup>50</sup> Ibid., 211.
- <sup>51</sup> Jacobs, 'A Conversation with Mark Amerika,' 150.
- <sup>52</sup> Ibid., 150.
- <sup>53</sup> Ibid., 150.
- <sup>54</sup> Ibid., 152.
- <sup>55</sup> Henning, 'New Lamps for Old: Photography, Obsolescence and Social Change,' 48.
- <sup>56</sup> Jacobs, 'A Conversation with Mark Amerika,' 151.
- <sup>57</sup> Henning, 'New Lamps for Old: Photography, Obsolescence and Social Change,' 53.
- <sup>58</sup> Ibid., 53.
- <sup>59</sup> Ibid., 55.
- <sup>60</sup> Ibid., 51.

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<sup>61</sup> Mitchell, *The Reconfigured Eye*, 30.

<sup>62</sup> Ibid., 30.

<sup>63</sup> Neri, 'Ethics and Photography.'

<sup>64</sup> Barrett, 'Photographs and Contexts,' 54.

<sup>65</sup> Neri, 'Ethics and Photography'

<sup>66</sup> Mitchell, *The Reconfigured Eye*, 42.

<sup>67</sup> Bonnie Meltzer, 'Digital Photography: A Question of Ethics,' *Leading and Learning with Technology*, (December/January 1996).

<sup>68</sup> Bryce Zabel, 'O.J.'s Last Run: A Tale of Two Covers' *Blog Critic's Magazine* (31 August 2005), <http://blogcritics.org/archives/2005/08/31/012306.php>.

<sup>69</sup> Ibid.

<sup>70</sup> Meltzer, 'Digital Photography: A Question of Ethics.'

<sup>71</sup> Barrett, 'Photographs and Contexts,' 59.

<sup>72</sup> Ibid., 61.

<sup>73</sup> Meltzer, 'Digital Photography: A Question of Ethics.'

<sup>74</sup> Neri, 'Ethics and Photography.'

<sup>75</sup> Ibid.

<sup>76</sup> Amato, 'Lying with Pixels.'

<sup>77</sup> Ibid.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid.

<sup>80</sup> Mitchell, *The Reconfigured Eye*, 23.

<sup>81</sup> ASCAP (American Society of Composers, Authors and Publishers), ASCAP Copyright Law Symposium: Nos. 40 and 41, 41 (April 1997), 685.

<sup>82</sup> Ibid., 687.

<sup>83</sup> Patric Hedlund, 'Artists' Rights in the Digital Future,' *Digital Media*, 1996 <http://www.forests.com/digitfut.html>.

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<sup>84</sup> Nicholas Wade, 'It May Look Authentic; Here's How to Tell It Isn't,' *The New York Times* (24 January 2006)

<sup>85</sup> Ibid.

<sup>86</sup> Neri, 'Ethics and Photography.'

<sup>87</sup> Ibid.

<sup>88</sup> Andy Grundberg, 'Ask it No Questions: The Camera Can Lie,' *New York Times* (12 August 1990), 29

<sup>89</sup> Gordon Graff, 'What's New In Filmless Photography; Ethical Questions that Arise When its Easy to Doctor Images,' *The New York Times* (15 January 1989).

<sup>90</sup> Ibid.

<sup>91</sup> John Long, Ethics in the Age of Digital Photography,  
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<sup>92</sup> Ibid.

<sup>93</sup> Fred Showker, 'Ethics in Digital Photography,' 60-Second Window, (1990),  
[http://www.60-seconds.com/168\\_ethics.html](http://www.60-seconds.com/168_ethics.html).

<sup>94</sup> Ibid.

<sup>95</sup> Ibid.

<sup>96</sup> Ibid.

<sup>97</sup> Neri, 'Ethics and Photography.'

<sup>98</sup> Ibid.

<sup>99</sup> Ibid.

<sup>100</sup> Ibid.

<sup>101</sup> Mitchell, *The Reconfigured Eye*, 38.

<sup>102</sup> Wade, 'It May Look Authentic; Here's How to Tell It Isn't.'

<sup>103</sup> Aspan, 'Ease of Photo Alteration adds a Hurdle for News Outlets.'

<sup>104</sup> Wade, 'It May Look Authentic; Here's How to Tell It Isn't.'

<sup>105</sup> Ibid.

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<sup>106</sup> Ibid.

<sup>107</sup> Ibid.

<sup>108</sup> Ibid.

<sup>109</sup> Neri, 'Ethics and Photography.'

<sup>110</sup> Mitchell, *The Reconfigured Eye*, 214.

<sup>111</sup> Ibid., 214.

<sup>112</sup> Barrett, 'Photographs and Contexts,' 57.

<sup>113</sup> Henning, 'New Lamps for Old: Photography, Obsolescence and Social Change,' 62.

## APPENDIX A: RIGHTS AND PERMISSIONS

Figure One. Eadweard Muybridge, Clouds Rest, Valley of Yosemite 1872, Library of Congress, Prints & Photographs Division, Laurence and Houseworth Collection

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Figure Two.

Hi Ashley,

Here's the cover.

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## CURRICULUM VITA

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**Education**

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**Texas A&M University    GPR: 3.9    College Station, TX    Expected Graduation Date: May 2008**  
*Bachelor of Arts, History    Minors in English and Anthropology*

**New York University    GPR: 3.76    New York, NY    Spring 2007**  
*Individualized Study, Concentration in Urban Culture*  
Poverty in the Midst of Plenty

**Activities / Honors**

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- Honors:* Undergraduate Research Fellowship (Honors Thesis in Photo History and Media)  
Dean's List, 2004-present  
Texas A&M Honors Student, 2004-present  
College of Liberal Arts Honors program, 2004-present  
Lambda Sigma Sophomore Honors Society, 2005-2006  
Graduated top 10 of High School Class, 2004
- Activities:* Honors Student Council, 2005-present (Service and Marketing Committees)  
Global Justice, 2007-present (Living Wage Committee)  
Habitat For Humanity, 2004-present  
Texas A&M Rowing Club, 2005-2007 (Secretary, Coxswain of 8 man novice boat).  
German American Partnership Program Exchange Student, 2003
- Volunteer:* NYC HOPE, 2006—Homeless Outreach in New York City, *Participant and Researcher*  
Phoebe's Home Volunteer, 2006—Domestic Violence Shelter  
Relay for Life Admissions Volunteer, 2006, 2007  
Big Event Volunteer 2005, 2007—*largest one day student led service project*  
Replant Volunteer, 2004, 2007 *Student Coordinator for Honors Student Council*  
Special Olympics Host Volunteer, 2005

**Work Experience**

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- Las Cruces Public Schools    Educational Intern    Las Cruces, NM    Summer 2005/2007**
- Assessed students' initial and exiting reading levels using DIBELS
  - Created and executed daily lesson plans
  - Assisted with general classroom management in class, at recess, and at lunch
- Rehage Entertainment    Revlon Run Walk for Women Intern    New York, NY    Spring 2006**
- Communicated with participants & team leaders via large meetings & appointments
  - Instructed individual teams in setting up personal homepages
  - Coordinated event day volunteers and distribution of materials and food
  - Acted as liaison with sponsors and the City of New York for event day logistics
- Albertson's    Courtesy Clerk    Las Cruces, NM    Summer 2005**
- Responded to and anticipated customers needs while presenting promotions
  - Assisted with inventory and stocking

*References upon request.*